

```
Dockerfile X
C:\Program Files\ Docker > Docker > Dockerfile

1 FROM ubuntu:16.04
2 LABEL author="David Elner"
3
4 RUN apt-get update
5
6 RUN apt-get install -y iputils-ping
```

1. Building the Dockerfile

```
Build an image from a Dockerfile
PS C:\Program Files\ Docker\ Docker> docker build -t 'delner/ping' .
[+] Building 94.1s (7/7) FINISHED
=> [internal] load build definition from Dockerfile 2.5s
=> => transferring dockerfile: 143B 0.5s
=> [internal] load .dockerignore 2.1s
=> => transferring context: 2B 0.2s
=> [internal] load metadata for docker.io/library/ubuntu:16.04 0.8s
=> [1/3] FROM docker.io/library/ubuntu:16.04 3.2s
=> [2/3] RUN apt-get update 61.6s
=> [3/3] RUN apt-get install -y iputils-ping 24.7s
=> exporting to image 1.7s
=> => exporting layers 1.3s
=> => writing image sha256:36f0ba35ab045a8bc3988180b1aa7c7f6bc48bca861b54399239852478a 0.1s
=> => naming to docker.io/delner/ping 0.1s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
PS C:\Program Files\ Docker\ Docker>
```

```
PS C:\Program Files\ Docker\ Docker> docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
delner/ping latest 36f0ba35ab04 3 minutes ago 170MB
ubuntu 16.04 9ff95a467e45 3 weeks ago 135MB
PS C:\Program Files\ Docker\ Docker>
```

2. Built image

```

1 FROM ubuntu:16.04
2 LABEL author="David Elner"
3
4 RUN apt-get update \
5     && apt-get install -y iputils-ping \
6     && apt-get clean \
7     && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* \
8     && truncate -s 0 /var/log/*log

```

```

PS C:\Program Files\Docker\Docker> docker images

```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
delner/ping	latest	55f4fd32503d	9 seconds ago	139MB
<none>	<none>	0082eb9a7552	4 minutes ago	170MB
<none>	<none>	36f0ba35ab04	10 minutes ago	170MB
ubuntu	16.04	9ff95a467e45	3 weeks ago	135MB

3. Optimizing Dockerfile

```

1 FROM ubuntu:16.04
2 LABEL author="David Elner"
3
4 ENV PING_TARGET "google.com"
5
6 RUN apt-get update \
7     && apt-get install -y iputils-ping \
8     && apt-get clean \
9     && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* \
10    && truncate -s 0 /var/log/*log
11
12 CMD ["sh", "-c", "ping $PING_TARGET"]

```

```
PS C:\Program Files\Docker\Docker> docker run -it delner/ping
PING google.com (172.217.26.142) 56(84) bytes of data.
64 bytes from 172.217.26.142: icmp_seq=1 ttl=37 time=42.3 ms
64 bytes from 172.217.26.142: icmp_seq=2 ttl=37 time=44.3 ms
64 bytes from 172.217.26.142: icmp_seq=3 ttl=37 time=43.2 ms
64 bytes from 172.217.26.142: icmp_seq=4 ttl=37 time=43.0 ms
64 bytes from 172.217.26.142: icmp_seq=5 ttl=37 time=44.1 ms
64 bytes from 172.217.26.142: icmp_seq=6 ttl=37 time=43.4 ms
64 bytes from 172.217.26.142: icmp_seq=7 ttl=37 time=42.9 ms
64 bytes from 172.217.26.142: icmp_seq=8 ttl=37 time=45.2 ms
64 bytes from 172.217.26.142: icmp_seq=9 ttl=37 time=42.5 ms
64 bytes from 172.217.26.142: icmp_seq=10 ttl=37 time=43.5 ms
64 bytes from 172.217.26.142: icmp_seq=11 ttl=37 time=44.0 ms
64 bytes from 172.217.26.142: icmp_seq=12 ttl=37 time=43.9 ms
64 bytes from 172.217.26.142: icmp_seq=13 ttl=37 time=45.5 ms
64 bytes from 172.217.26.142: icmp_seq=14 ttl=37 time=44.4 ms
64 bytes from 172.217.26.142: icmp_seq=15 ttl=37 time=43.5 ms
^C
```

4. Added directives to automatically ping Google